THE DIFFERENCE A DIFFERENCE MAKES: VARIATIONS IN HANDWRITING IDENTIFICATION

BY MARCEL MATLEY

The National Document Examiner

The Official Journal from

tIGS

The National Questioned Document Association

Journal II 1992

THE DIFFERENCE A DIFFERENCE MAKES: VALUE OF VARIATIONS IN HANDWRITING IDENTIFICATION

"The standard of large or small writing is, in itself, of very secondary importance. What is very significant is the *proportion in size* between tall letters and small letters, and what is decisive is not so much the absolute proportion but the degree of variation in this feature of writing, as in all features." [Saudek, *PSYCHOLOGY OF HANDWRITING*, p.63] To repeat: "... what is decisive is ... the degree of variation ... in all features." Variation is what makes a handwriting most individualistic and therefore most identifiable.

Variations can be considered as one of three types:

- I. From the school model, by adopting other common traits;
- II. From the school model, by adopting or developing individual features; or
 - III. Within the individual's own personal style.

These three types of variations can be distinguished further in so far as each is:

- IV. Consistent in writing habits throughout the writing;
- V. Having variations occurring in consistent patterns within certain features or locations throughout the writing; or
 - VI. Being inconsistent, appearing in no discernable patterns.

Let us briefly look at each of these six kinds of variations and how each is serviceable in handwriting identification.

I. ADOPTION OF COMMON WRITING TRAITS

Writing traits that adhere to a school model are the primary kind of class characteristics. No class characteristic can be the basis for a positive identification of a writer. At best, it may indicate a possibility or suspicion. However, such traits can indicate a definite non-identity, when a suspected writer's exemplars show traits from a different school model than that of the suspected writing.

Adoption of writing traits common to a particular class of people is similar to the use of the school model. These traits are secondary class characteristics. The difference from the first kind is that the class identification is more specific, but still not a sufficient basis for the individual identification of a writer.

The usual groups identified by common writing traits are family members and occupations, such as draftsmen and architects. The more exclusive the group, as in a family, the more helpful is the class trait in limiting the number of possible suspects. On the other hand, the more the potential forger and victim share class characteristics, the harder the forgery is to detect and thus the more readily the forger might give into temptation.

II. ADOPTION OF INDIVIDUAL TRAITS

It can be considered impossible for any writer to avoid having some personal, individual traits. The irony of a staunch adherence to the school model in penmanship training is this very fact. If failure is inability to replicate exactly the model forms, every writer is necessarily doomed to failure, even the author of the penmanship text.

However, what concerns us here is not merely the inescapable individualizing traits but the positive adoption of writing traits definitely distinct from the taught patterns. The degree to which such traits appear is the measurement of the degree of the writer's "graphic maturity," to use Saudek's term. The more graphically mature a writer is, the harder it is to make a forgery of the writing.

Incidentally, when document examiners lacking graphological knowledge and understanding speak of skill in penmanship, they mean the degree of adherence to the school model. As in any other human endeavor, true skill in penmanship is the development of a fluent, original and aesthetic style. The former is mere pedestrian conformity.

Individually developed or adopted features are the first means of making a positive identification of a handwriting.

III. VARIATIONS WITHIN OWN STYLE

We might say that, when a writer developments and adopts individual features of handwriting, there is now a personal school model, rather than a communal one. When the writer breaks from that personal pattern, another layer of variation is introduced into the writing. Just as the type and degree of variation from the communal model serves to identify the writer, so the type and degree of variation from the personal style, *in so far as it is habitual*, is even more serviceable in identifying the writer.

The more deep-rooted and unconscious a habit is, the more unaware the person is of its existence and/or extent and the harder it is to act contrary to it. Handwriting is a habitual activity which was

acquired through training and practice. It is also a habit of minute movements, and minutiae in behavior tend to be inconspicuous, unconscious and involuntary once they become inculcated.

The variations from the practiced pattern tend to be from habits or inclinations beyond the person's conscious, deliberate choice. So the inconspicuous, unconscious and involuntary nature of these are greater than that of the deliberately practiced habits. They become more identifying than the patterns from which they diverge, and they are even harder for a would-be forger to identify and imitate.

In this regard the document examiner must be most wary of a pitfall. What is this pitfall? Variations within the personal style or from the communal style may be of three kinds:

- 1. Current habits of variation;
- 2. Variations adopted then dropped at various periods in the writer's life; or
- Variations due to circumstantial influences, unique situations, peculiar writing materials, physical health or other factors.

The first two are the means for a positive identification. The second points up the need for contemporaneous exemplars. The third requires special considerations. The examiner must be aware of what indicates such possibilities and what are the indicators given in the literature for the many possible causes. This third group can prove to the knowledgeable examiner when and under what influences a writing was made, while with the unknowledgeable or incompetent examiner it would lead to a false opinion.

IV. CONSISTENT HABITS THROUGHOUT THE WRITING

Rigid consistency in handwriting is a very rare trait. A famous historical example of rigid consistency within one's own personal style is John Quincy Adams. An example of perfect adherence to the rules of the taught style is George Washington. Such a writer would be difficult to forge. The least variation would be grossly evident when compared to genuine exemplars. Also, such a writer, being so thoroughly and habitually consistent, would find it most difficult to imitate the unevenness found in the writing of the vast majority of people.

V. VARIATIONS WITH CONSISTENT PATTERNS

It seems contradictory to speak of consistent variations. An analogy might help. A person greets co-workers politely every day upon coming to work. One person in particular, however, is pointedly ignored very day. That impoliteness varies from the habitual courtesy of greeting co-workers and does so consistently. While the courtesy of treating others is a personally identifying trait, the ignoring of that particular person is even more individually characteristic, serving to mark the individual off from all others who have the good habit of greeting co-workers.

Variations within the writer's own established style are the principal identifying features. The next best features for positive identification are the individual departures from class characteristics. Both of these two kinds of variations are more cogent a proof the more they are in the more inconspicuous and/or less conscious parts of the writing. Saudek identified such parts, among which are

connecting strokes, letter spacing and proportions within the mid-zone letters.

The variations one should be most concerned with are those that are the most inconspicuous in feature and location and most consistent in their appearance. That is, the variation happens in a particular letter, letter combination or location within a work and does so in virtually every such occasion. An example.

A writer uses garland-like connections. When writing "you," though, the up stroke of the y-loop arcades below the base line and there is a pen lift before the "o." Yet other lower zone loops, as in "get," connect in garland-like fashion. Common types of variations are change of pressure at the finals of words, wider or narrower letter spacing at the beginning or ending of longer words, upper or lower loops having slants divergent from the mid-zone.

These individual habits of variation within one's own writing style, being very inconspicuous, are the most difficult for the forger to observe accurately and completely. Being personal to the writer being victimized and contrary to the forger's own unique habits, they are most difficult to imitate and virtually impossible to imitate for any extended period of writing. Meanwhile, the forger finds it equally difficult, if not impossible, to be aware of and suppress his own personal habits of variations.

VI. VARIATIONS WITHOUT PATTERN

When a writer shows variations which lack any consistency, the probable cause of such extreme unevenness must be determined. The first step is to determine whether the trait is common to all

writings over periods of time or only appearing within a given time period, unusual circumstance or for a particular kind of writing. Exemplars as extensive as possible would be required.

Where this type of variation is most fraught with hazards for the examiner is when entire samples of writings by the same person are markedly different from each other but fairly consistent each within itself. The various mental illnesses marked by dissociated aspects of the personality are the immediate suspected cause of such variation. When the variation is marked within any given sample of writing, the extent, quality and randomness of the variation become identifying characteristics. That also goes for the particular features of the writing which suffer variation.

VII. RESOURCES ON VARIATIONS IN HANDWRITING

Every handwriting expert should be intimately familiar with Robert Saudek's *EXPERIMENTS WITH HANDWRITING*. Buy it and study it and keep it as a permanent reference.

The document examination literature has some papers reporting studies of variation in handwriting. Medical and psychology journals report many studies in those fields relating handwriting to problems of health and psychological factors. Education journals carry articles in the field of penmanship, how it is taught and the problems involved with various methods and types of students.

My intention is to research these various resources and publish bibliographies to guide the professional document examiner to these primary sources. There is a misbelief that no research has been done to validate much of our principles of handwriting identification or

provide statistical bases for the occurrence of certain features.

Actually much has been done. In my WITNESSING TO THE TRUTH OF DOCUMENTS, 42 studies are listed under the heading HANDWRITING RESEARCH. Most of these provide some statistical data for the occurrence of handwriting features, several having to do with variations, both from the school model and within the individual style.

Additionally, I have almost seven hundred citations to medical, psychological, educational and other academic journals having to do with the research and study of handwriting. And I have not yet really worked hard at ferreting out all the bibliographic guides to these materials. Eventually I hope to study these various papers and report their findings and usefulness for our purposes.

(1826 words)